

TVA is updating the 2011 Natural Resource Plan (NRP), which contained six Resource Areas centered on stewardship activities. The 2020 NRP has been expanded to include ten proposed Focus Areas that tell a comprehensive story of TVA's work in natural resources. The NRP is a strategic document that, over the next 15 to 20 years, will guide the direction of TVA's resource stewardship on the 11,000 miles of shoreline and 293,000 acres of public land under its care. Water Resource Stewardship is one of the ten proposed Focus Areas.

TVA has been actively involved in water resources management and river system integration since 1933, when Congress charged the agency with managing and serving as the steward of the Tennessee River and its tributaries. Water Resource Stewardship focuses on protecting and improving the quality of the streams, rivers, and reservoirs in the Tennessee River watershed.

The Tennessee River watershed encompasses parts of seven states in the Southeast and is approximately 41,000 square miles. The watershed is one of the most biologically diverse watersheds in North America, and is historically home to more than 300 fish species and about 100 mussel species. TVA's efforts to protect and improve water quality and aquatic biodiversity include collecting and reporting water quality data and working with partners to implement watershed protection efforts. TVA also builds and catalyzes partnerships, promotes public outreach efforts, and provides technical support to implement key water resource initiatives throughout the Tennessee River watershed.

TVA works with partners to improve and enhance priority watersheds. Improvement and enhancement efforts include streambank stabilization, buffer establishment, in-stream habitat improvements, mussel propagation and re-introduction, and outreach. Partnership outreach efforts are also a vital part of Water Resources Stewardship. One example of partnership outreach efforts is the development of the Tennessee River Basin Network (TRBN). The TRBN is a group of peer agencies and non-profit organizations that are working together to identify collaboration opportunities and shared resources and initiate long-term planning to protect and improve biodiversity in the Tennessee River watershed.



Benefits

- Provides data that supports an integrated management approach for natural resource stewardship and the requirements of the Clean Water Act
- Provides data to partners to enhance the understanding of stream, tailwater, and reservoir conditions, support research and water related conservation activities to improve water quality, reduce drinking water associated costs, create more recreation opportunities, and improve habitat for aquatic life
- Increases public awareness of the value of the Tennessee River system's biodiversity and water quality
- Fosters collaborative efforts and enhances the ability to leverage funding, technical support and networking opportunities to implement partnership activities that protect exceptional aquatic biodiversity within the Tennessee River watershed

Objectives

- Monitor and assess biological conditions in streams and tailwaters to maintain an in-depth knowledge of the changing conditions of water quality throughout the Valley and help TVA and stakeholders identify and track water quality protection and improvement opportunities
- Partner to promote and implement water quality and aquatic habitat improvement across the Tennessee River watershed
- Develop and execute outreach activities to raise public awareness of the importance and value of protecting water resources within the Tennessee River watershed

Programs

The 2011 NRP contained nine programs that made up the Water Resources resource area. The 2020 NRP proposes restructuring of this area into the Water Resources Stewardship focus area. This new focus area includes six programs which combines many of the previous programs that describe TVA's work in water resource stewardship. These programs align the NRP more consistently with how TVA enhances water resources in the Tennessee River watershed.

AQUATIC ECOLOGY MANAGEMENT

The Aquatic Ecology Management program focuses on the enhancement of aquatic biological communities in streams, reservoirs and tailwaters of the Tennessee River watershed. This includes activities such as habitat improvement, biological monitoring, and pollution reduction. TVA will partner with local, state and federal partners to identify and actively protect diverse aquatic biological communities.

STREAM MONITORING

The goal of TVA's Stream Monitoring (SM) program is to use biological monitoring to assess ecological conditions of streams throughout the Tennessee River watershed. The SM program helps TVA maintain an in-depth knowledge of the changing conditions in water quality throughout the Valley and is used to identify water quality protection and improvement opportunities. This data is also shared with other stakeholders to benefit resource improvement efforts. Other monitoring such as reservoir inflow and tailwater monitoring are performed by TVA and are outside the scope of the NRP.



SENTINEL MONITORING

TVA's Sentinel Monitoring program is a partnership effort to foster a better understanding of climatic impacts on water resources in the Tennessee River Watershed. TVA partners with state and federal resource and environmental agencies to conduct long-term monitoring efforts to collect data on temperature, flow, aquatic life, and other parameters.

WATER RESOURCE OUTREACH CAMPAIGN

TVA will work with local, state and federal partners to inform stakeholders about the importance of water resources to the quality of life in the Tennessee Valley. These outreach efforts will focus on (1) promoting sustainable land use practices that protects stream and reservoir water quality; (2) sharing information with stakeholders about water resources at events such as bass tournaments, boat shows, and other events; and (3) communicating emerging resource concerns (e.g., loss of aquatic diversity, nutrient and sediment reductions).

NUTRIENT SOURCE MANAGEMENT

This Program will focus on reducing nutrients (e.g., phosphorus) in TVA reservoirs. Using existing data to assess the nutrient status, TVA will target reservoirs with the greatest potential for nutrient load reductions. This program will provide information to improve understanding and communicate resource conditions within the Tennessee Valley, while working to reduce nonpoint nutrient loading from these watersheds.

TENNESSEE VALLEY CLEAN MARINA

The Tennessee Valley Clean Marina Program is a voluntary program that promotes environmentally responsible marina and boating practices and links commercial recreation infrastructure to TVA's Section 26a permitting and Land Use programs. Marina operators choosing to participate in the program implement best management practices to address issues associated with oil and gas control, sewage management, marina siting and erosion prevention to reduce water pollution in the Tennessee River watershed.

